

II. CLAIM AMENDMENTS

1. (Original) A method for estimating the location of a mobile unit in a cellular radio system, said system comprising elongate cells and non-elongate cells, and said method comprising:

identifying a cell of the system in which the mobile unit is located;

determining whether the cell is elongate or non-elongate;

determining the location of the base-station;

if the cell is non-elongate, estimating the location of the mobile unit to be the location of the base station of the cell; or

if the cell is elongate, estimating the distance of the mobile unit from the base-station of the cell, determining bearing information associated with the cell, the bearing information defining a direction, and estimating the location of the mobile unit by calculating a location offset from the base-station by the said distance in the said direction.

2. (Original) A method as claimed in claim 1, wherein the bearing information is independent of the location of the mobile unit within the cell.

3. (Previously Presented) A method as claimed in claim 1, wherein the distance of the mobile unit from the base-station is estimated by means of synchronisation information of the cellular radio system.

4. (Currently Amended) A method as claimed in claim 3, wherein the synchronisation information represents a timing offset between the mobile unitstation and the base-station.

B1 | 5. (Currently Amended) A method as claimed in claim 1, comprising the step of sending a message to the mobile unitstation in dependence on the estimated location.

6. (Currently Amended) A method as claimed in claim 1, comprising the step of receiving a message from the mobile unit requesting estimation of its location.

7. (Previously Presented) A method as claimed in claim 1, comprising the steps of receiving information defining a location; and calculating a route between that location and the estimated location of the mobile station.

8. (Original) A locating unit for estimating the location of a mobile unit in a cellular radio system, the unit being connected to the cellular radio system for reception of information identifying a cell of the system in which the mobile unit is located and information indicative of the distance of the mobile

unit from the base-station of the cell, said system comprising elongate and non-elongate cells, said locating unit comprising:

data storage means storing the location of the base-station and, if the cell is elongate, bearing information associated with the cell, the bearing information defining a direction; and

location calculation means for, if the said cell is non-elongate, calculating the location of the base-station as an estimate of the location the mobile unit, and if the said cell is elongate, calculating the distance of the mobile unit from the base-station of the cell and calculating a location offset from the base-station by the said distance in the said direction as an estimate of the location of the mobile unit.

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9. (Currently Amended) A locating unit as claimed in claim 8, comprising messaging means for generating a message in dependence on the estimated location for transmission to the mobile unit.

10. (Currently Amended) A locating unit for reporting the location of a mobile unit in a cellular radio system, the unit being connected to the cellular radio system for reception of information identifying a cell of the system in which the mobile unit is located and information indicative of the distance of the mobile unit from the base-station of the cell, said system comprising elongate and non-elongate cells, the locating unit comprising:

data storage means storing descriptive information associated with one or more possible distances of a mobile unit from the base-station of the cell, and if the cell is elongate bearing information associated with the cell, the bearing information defining a direction, and if the cell is non-elongate, estimating the location of the mobile unit to the base station of the cell; and

Bl location reporting means for generating a report on the location of the mobile unit based on the descriptive information that corresponds to the distance of the mobile unit from the base-station of the cell.

11. (Original) A unit as claimed in claim 10, wherein the descriptive information comprises place name information.

12. (Previously Presented) A unit as claimed in claim 10, wherein the descriptive information comprises road name information.

13. (Previously Presented) A unit as claimed in claim 10, wherein the location reporting means comprises a wireless application protocol server.

14. (Original) A unit as claimed in claim 13, wherein the location reporting means comprises means for accepting a request for information on the location of the said mobile unit from a second mobile unit from a second mobile unit.

15. (Original) A unit as claimed in claim 14, wherein the said request is made by means of the wireless application protocol.

16. (Currently Amended) Locating apparatus for reporting the location of a mobile unit in a mobile telecommunication system including positioning means for determining the geographic location of a mobile unit in response to a request including information identifying that mobile unit, said system comprising elongate and non-elongate cells, the locating apparatus comprising:

731 location request means for requesting the geographic location of a mobile station from the positioning means, and if the cell is elongate bearing information associated with the cell, the bearing information defining a direction, and if the cell is non-elongate, estimating the location of the mobile unit to the base station of the cell;

geographic location translation means for receiving the geographic location of the mobile unit from the positioning means and translating the said geographic location into descriptive information; and

location response means for generating a response message comprising the said descriptive information.

17. (Original) Locating apparatus as claimed in claim 16, wherein the locating apparatus is capable of providing a content service to respond with the said descriptive information.

18. (Original) Locating apparatus as claimed in claim 17, wherein the said service is a wireless application protocol service.

19. (Previously Presented) Locating apparatus as claimed in claim 16, wherein the said positioning means is a mobile location centre.

20. (Currently Amended) A method for providing a report on the location of a first mobile station, said system comprising elongate and non-elongate cells, the method comprising:

a second mobile station transmitting a request for information on the location of the first mobile station;

if the cell is non-elongate, estimating the location of the first mobile station to be the location of the base station of the cell, and if the cell is elongate, estimating the distance of the mobile station from the base station of the cell, determining bearing information associated with the cell, the bearing information defining a direction, and estimating the location of a mobile station by calculating a location offset from the base station by the distance in said direction;

generating a report on the location of the first mobile station; and

transmitting that report to the second mobile station;

wherein the request and/or the report are transmitted by means of the wireless application protocol.

21. (Original) A method as claimed in claim 20, wherein the report is generated by a wireless application protocol server.

B1 22. (Previously Presented) A method as claimed in claim 20, wherein the said request is made to a gateway mobile location centre by way of a WTA server.

23. (Previously Presented) A method as claimed in claim 20, wherein the said report is generated based on information from a gateway mobile location centre and from a location information server.
